



Making Conservation Work for You

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for

Office of Rural Community Affairs

December 2, 2003




Topics

- Demand Profile and Programmatic Decisions
- Price
- Conservation = \$avings




Conservation

- Results from
 - Behavior
 - Efficient Equipment
 - Utility and customer cooperation
- 



Public


- ✓ Support is essential
 - ✓ Expects leadership from utility
 - ✓ Can be an ally or a partner
 - ✓ Can drive new program development
- 

Conservation Goals

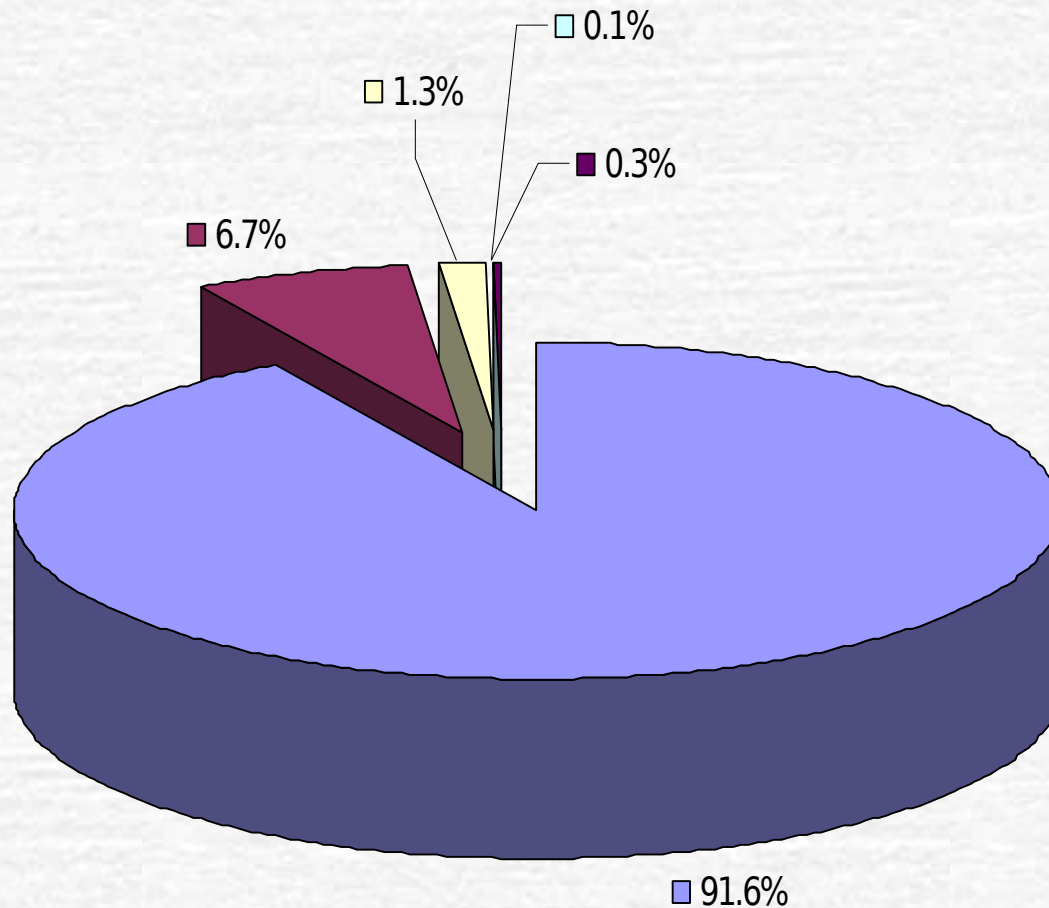
- ✓ Percent reduction
- ✓ Per Capita reduction
- ✓ Cost/Benefit



Demand Profile

- ☛ Lost or un-metered water
 - ☛ Customer classes
 - ☛ Summertime peaking
 - ☛ Growth projections
- 

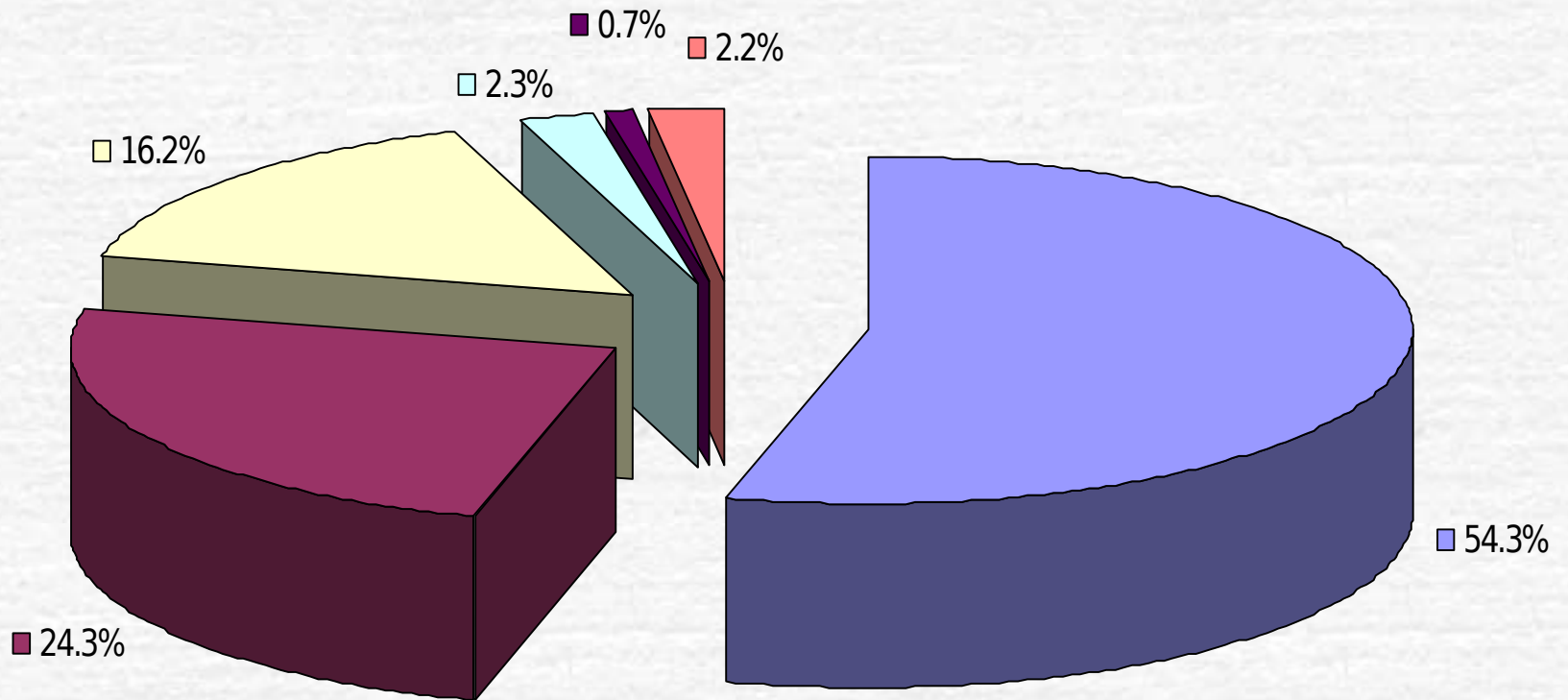
Connections by Customer Class



SAWS 1995

■ Residential ■ Commercial ■ Apartment ■ Industrial ■ Municipal

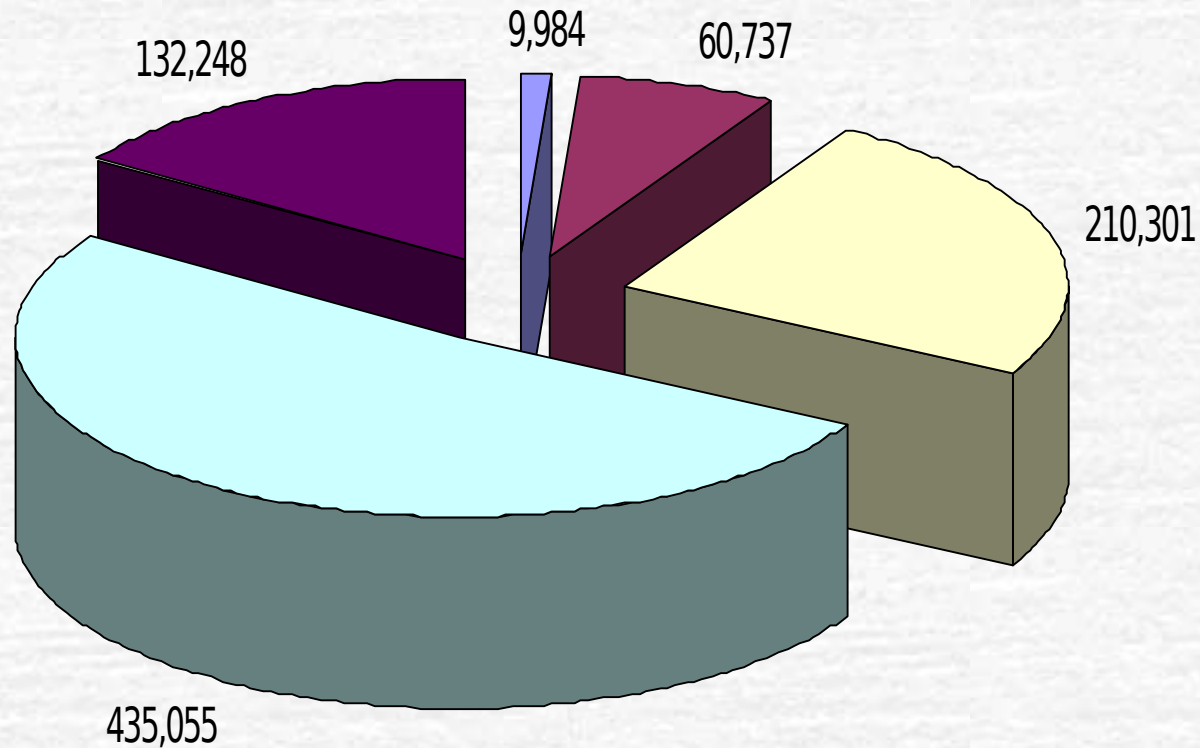
Water Consumption by Customer Class



SAWS 1995

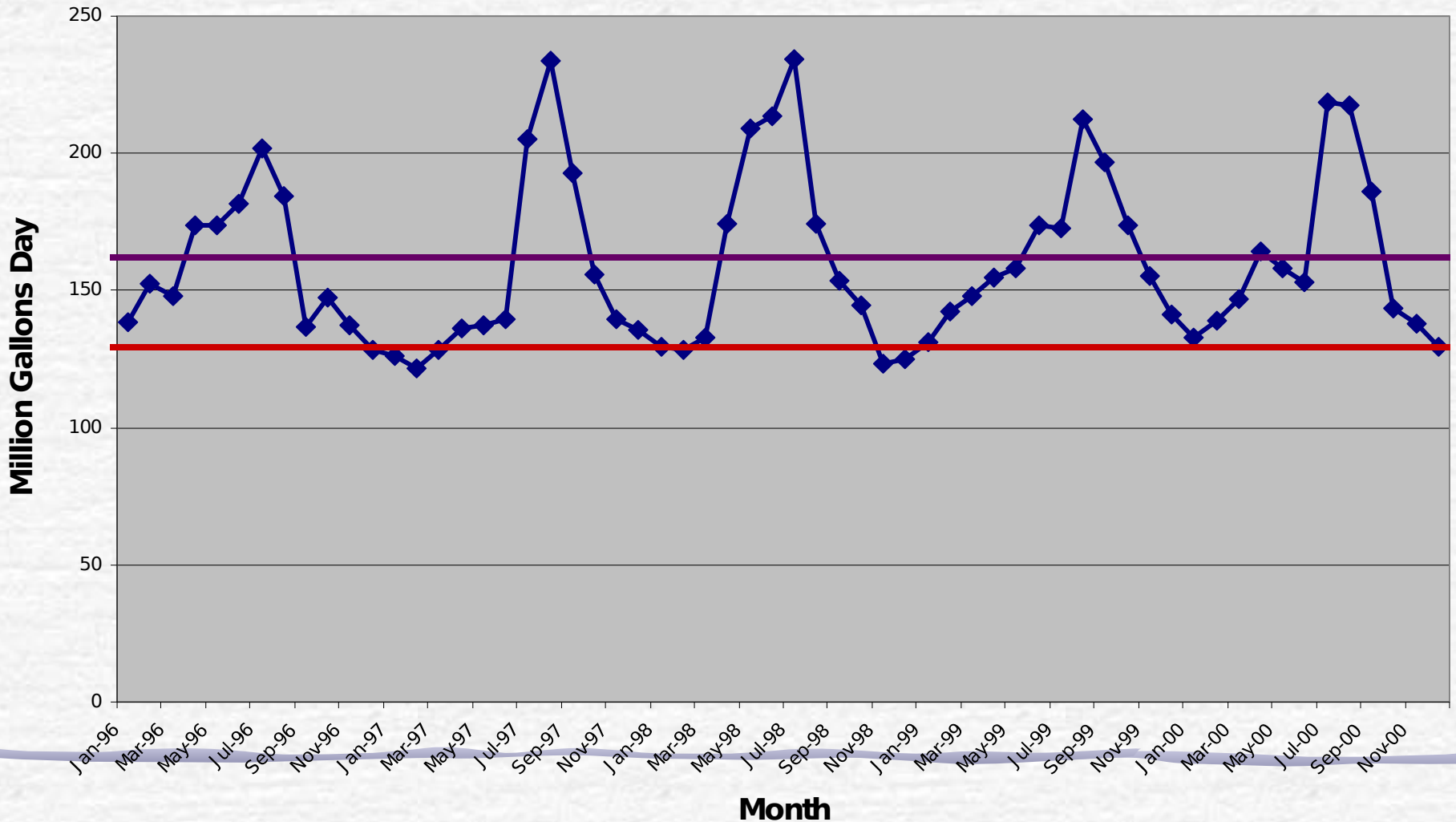
■ Residential ■ Commercial ■ Apartment ■ Industrial ■ Wholesale ■ Municipal

Average Monthly Consumption per Connection (gallons)

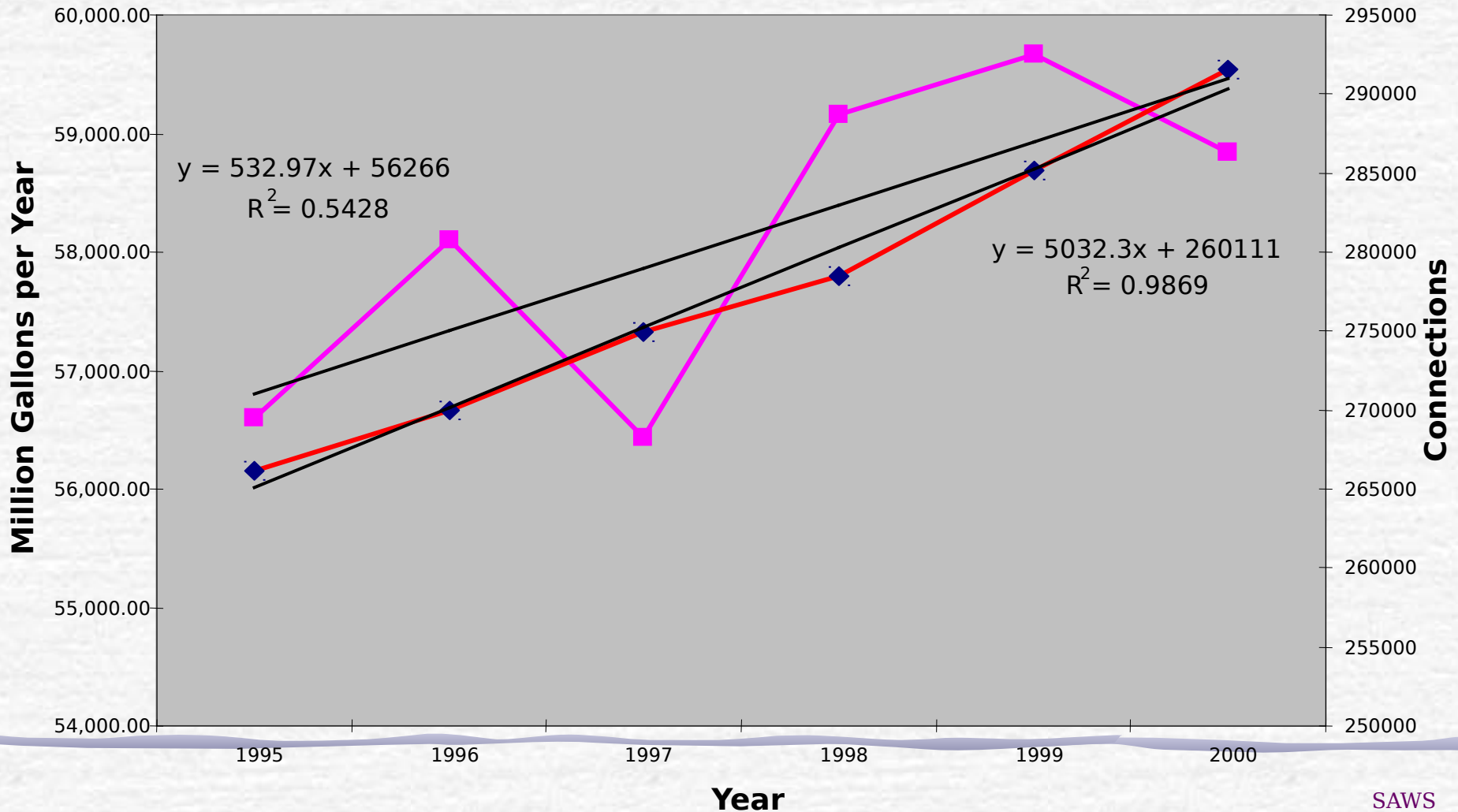


■ Residential ■ Commercial ■ Apartment ■ Industrial ■ Municipal

Average Daily Pumping



Annual Pumping versus Growth San Antonio Water System



Historical Water Use

GPCD

All EPWU Customers

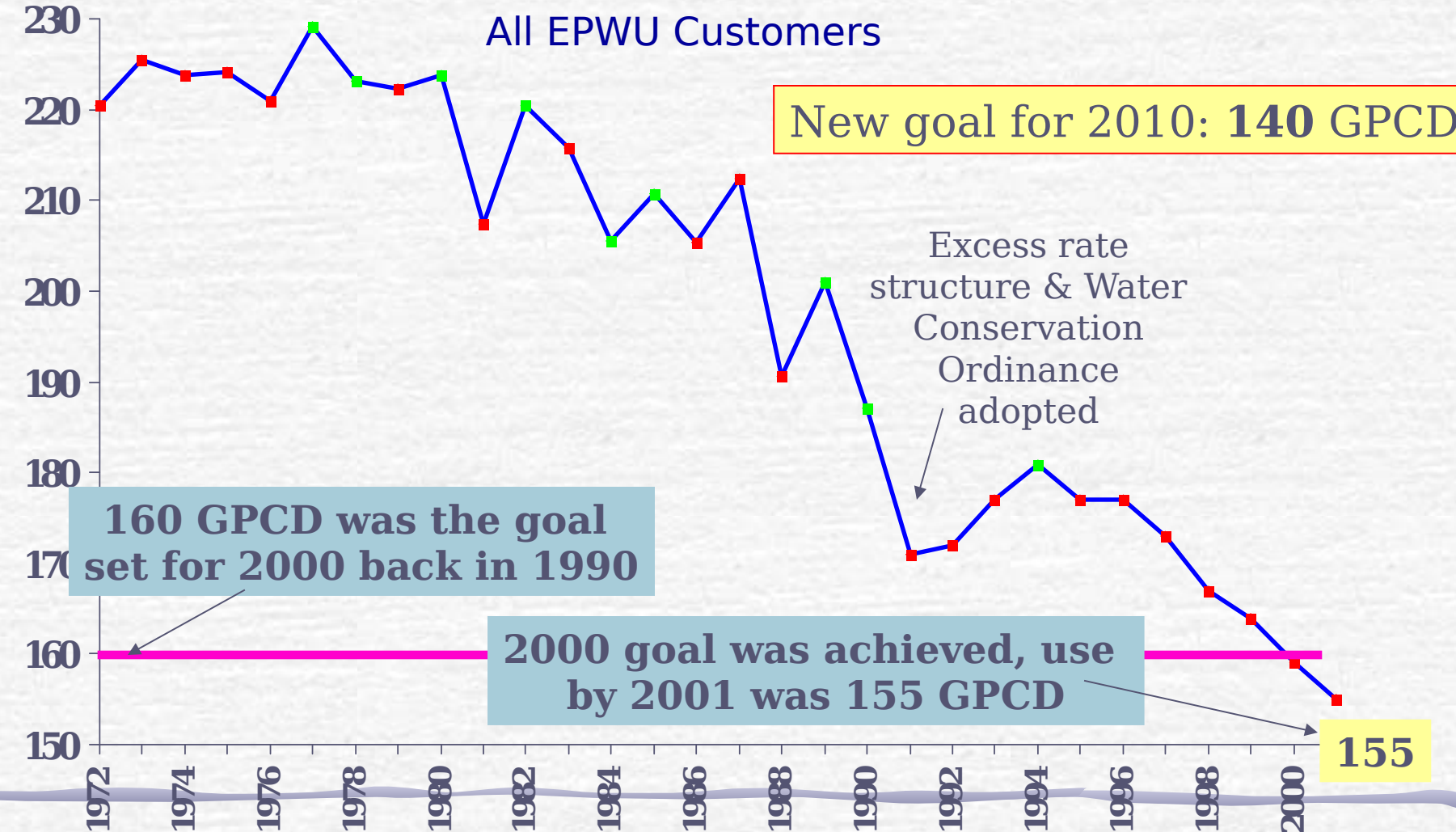
New goal for 2010: **140 GPCD**

Excess rate
structure & Water
Conservation
Ordinance
adopted

160 GPCD was the goal
set for 2000 back in 1990

2000 goal was achieved, use
by 2001 was 155 GPCD

155




The Basics

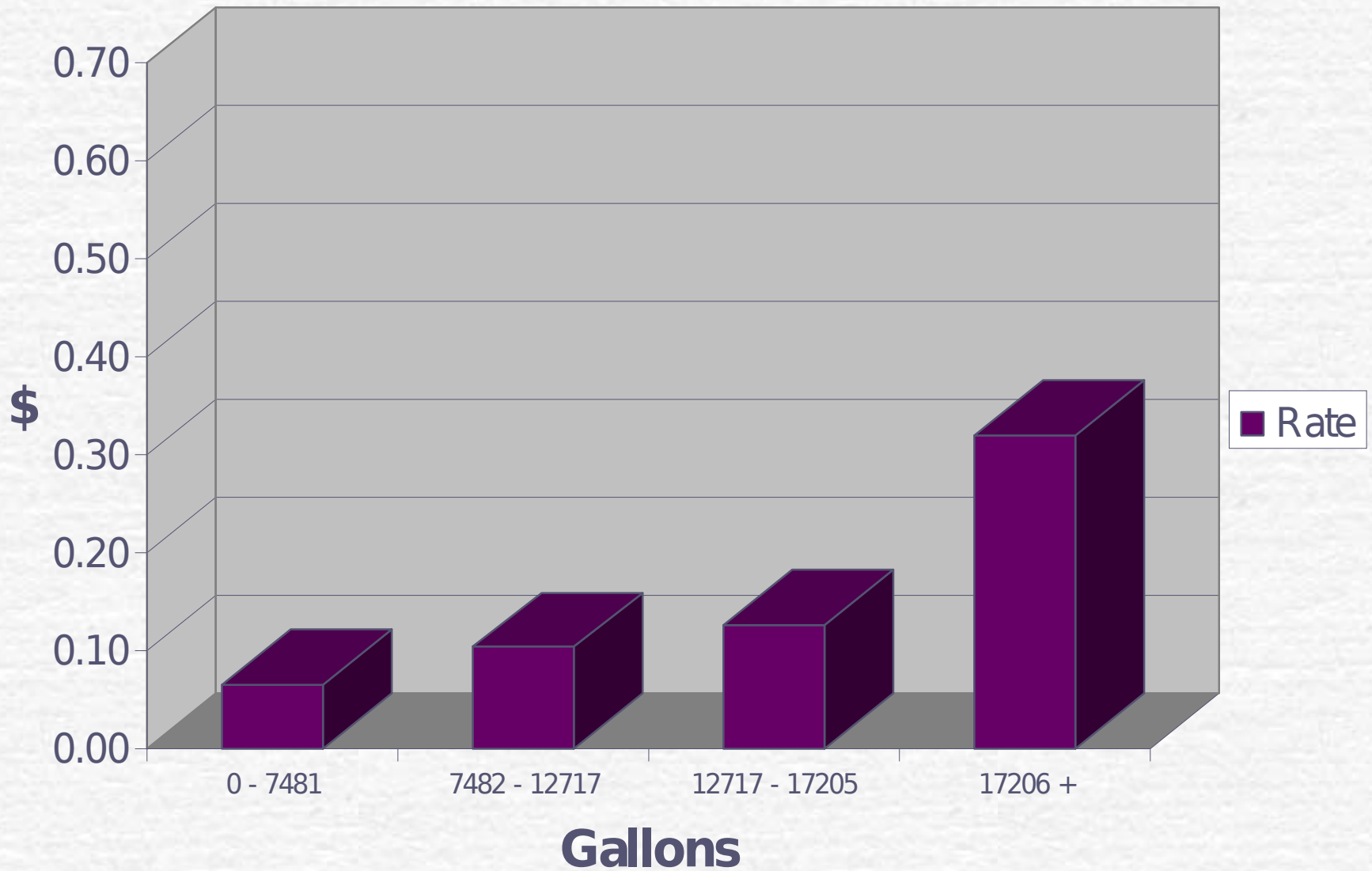
- Water Accountability Program
 - Metering
 - System Audit and Leak Detection
- Conservation Pricing
 - Increasing Block Rates
 - Irrigation Rates



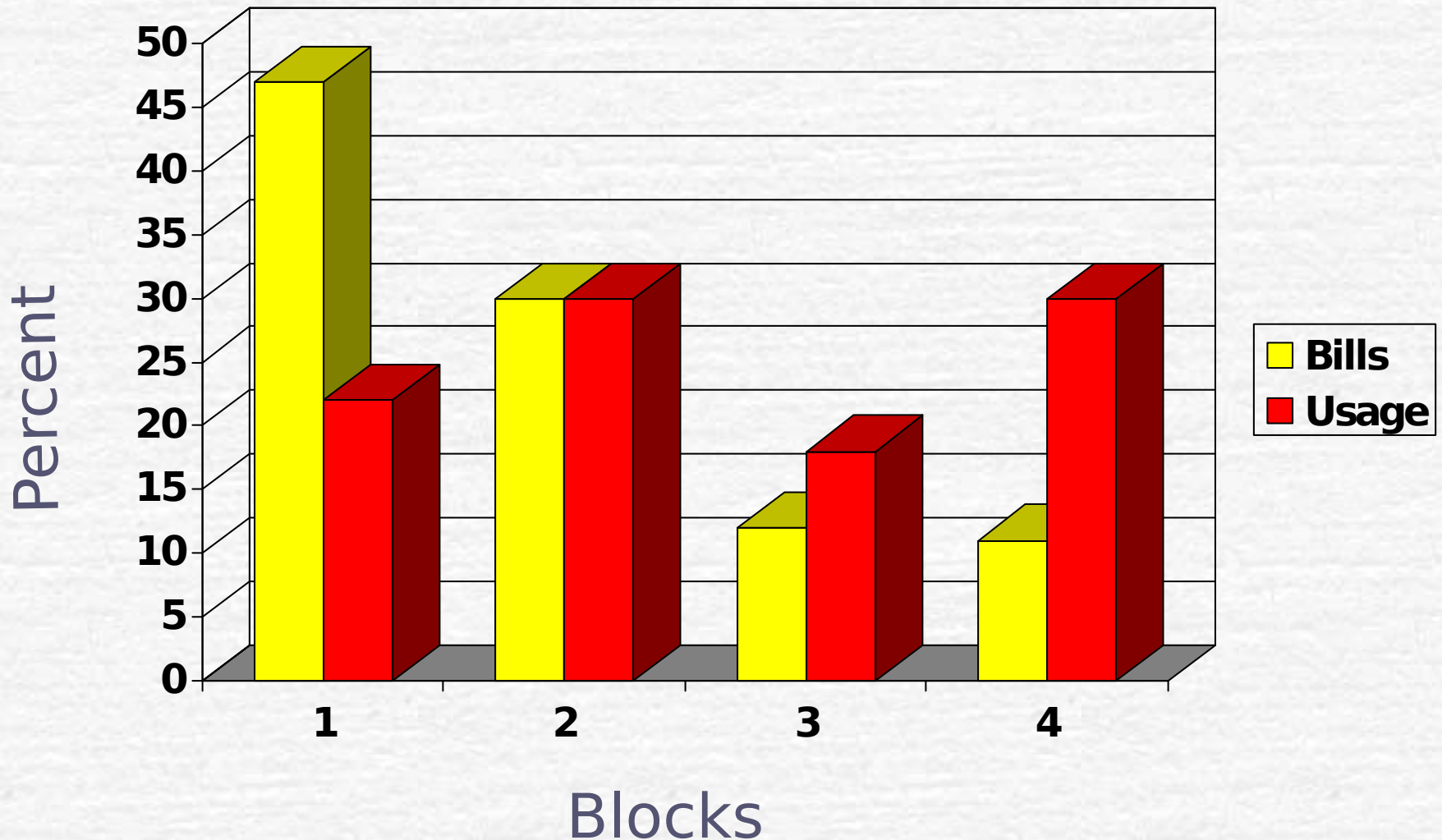
Price

- ✓ Cost/Benefit
 - ✓ Avoided costs
 - ✓ Rates:
 - Best motivator for outdoor and discretionary water use
 - Inverted blocks or drought surcharges
 - Water budgets
- 

Residential Rate per 100 Gallons



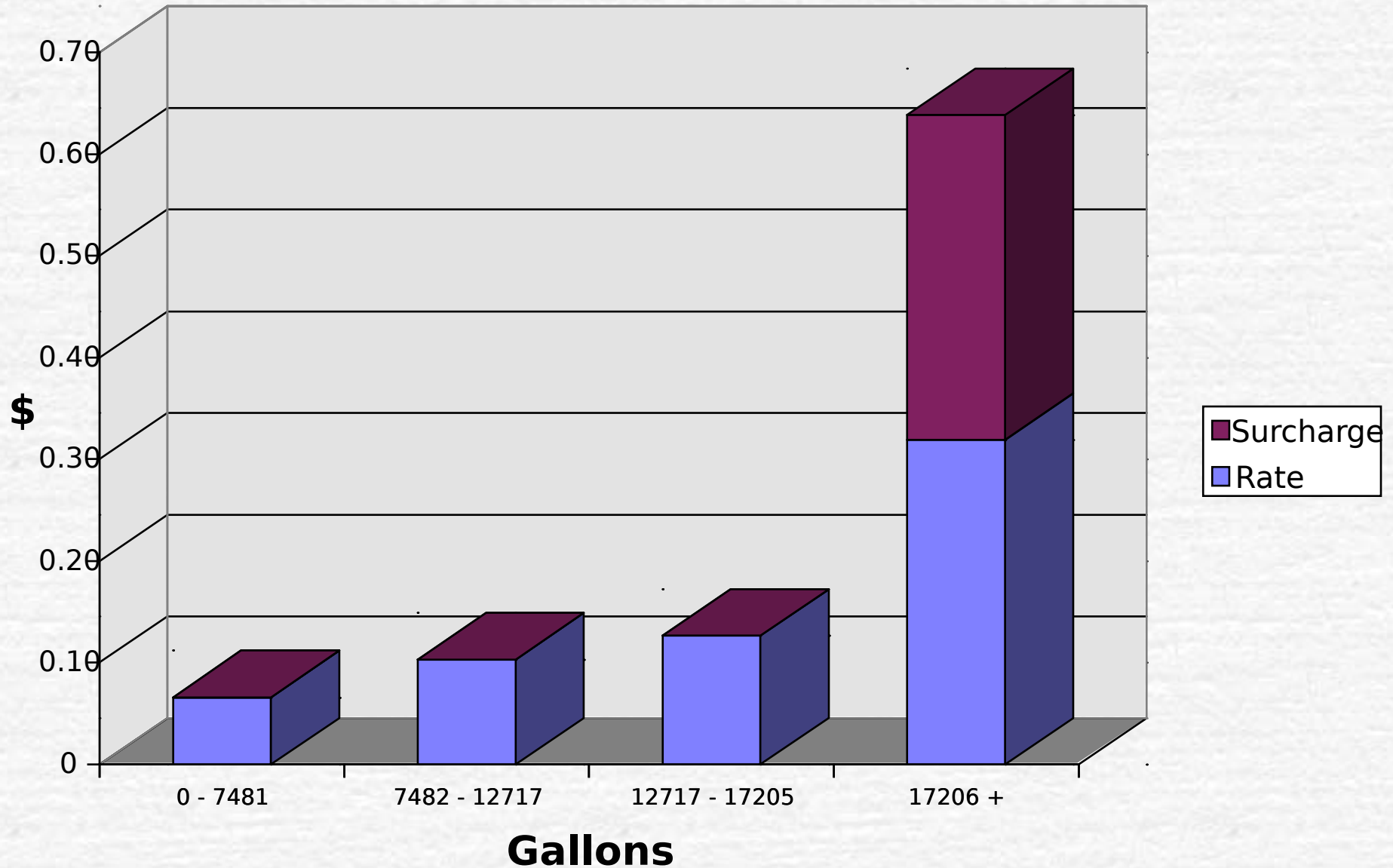
Residential Annual Bills Vs. Usage



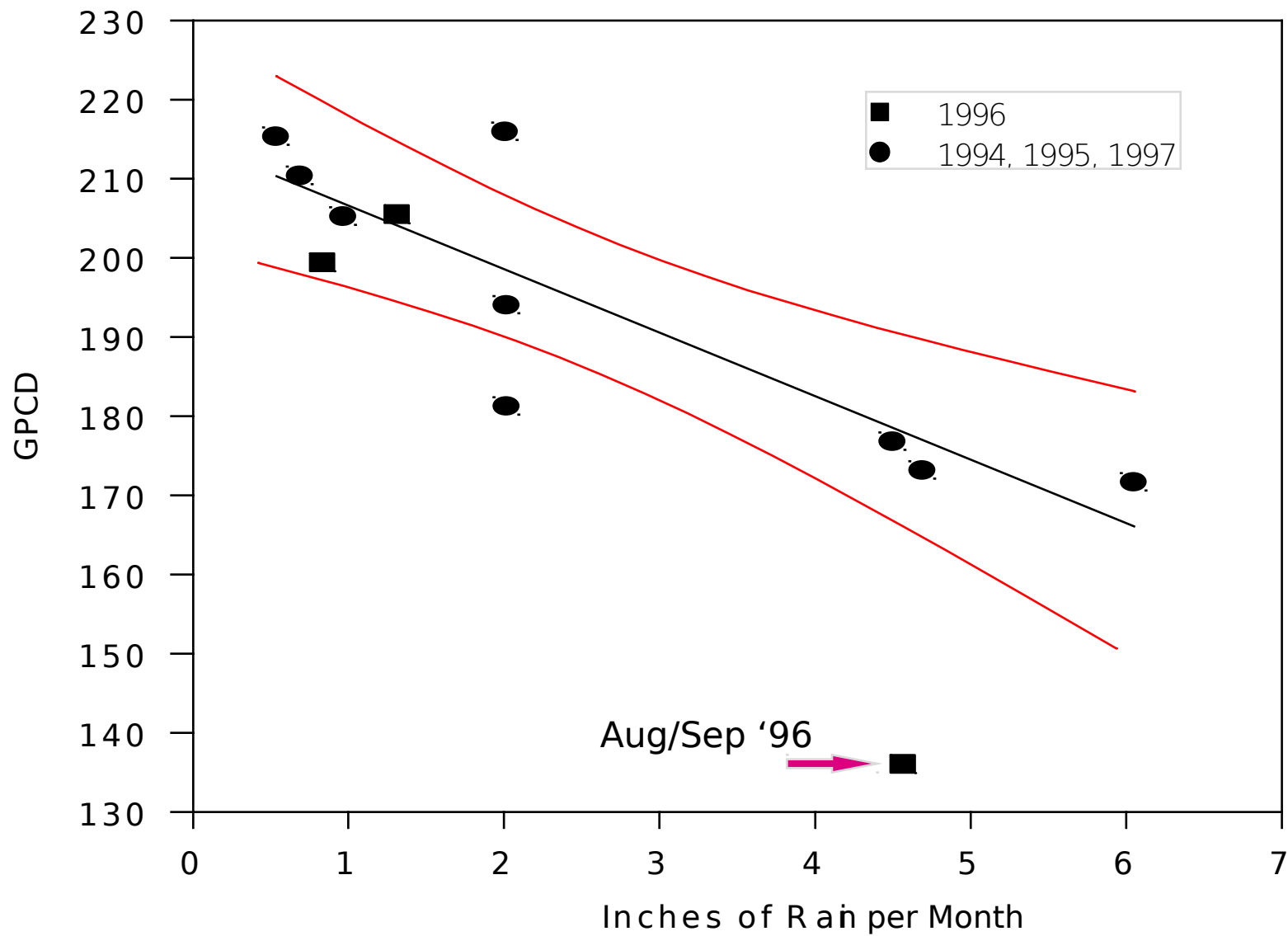
Drought Surcharges

- ✓ Significant percentage increase
- ✓ Only top or excess users
- ✓ Automatic
- ✓ They Work!

Residential Rate per 100 Gallons (with Surcharge)



GPCD vs Rainfall



Drought Surcharge Results


- ☛ Rainfall and Critical Period Management most significant
- ☛ Best fit: 154 gpcd
- ☛ Actual: 136 gpcd
- ☛ 271 to 573 million gallons additional conservation above predicted amount.



Best Management Practices

(EAA)

Core Municipal

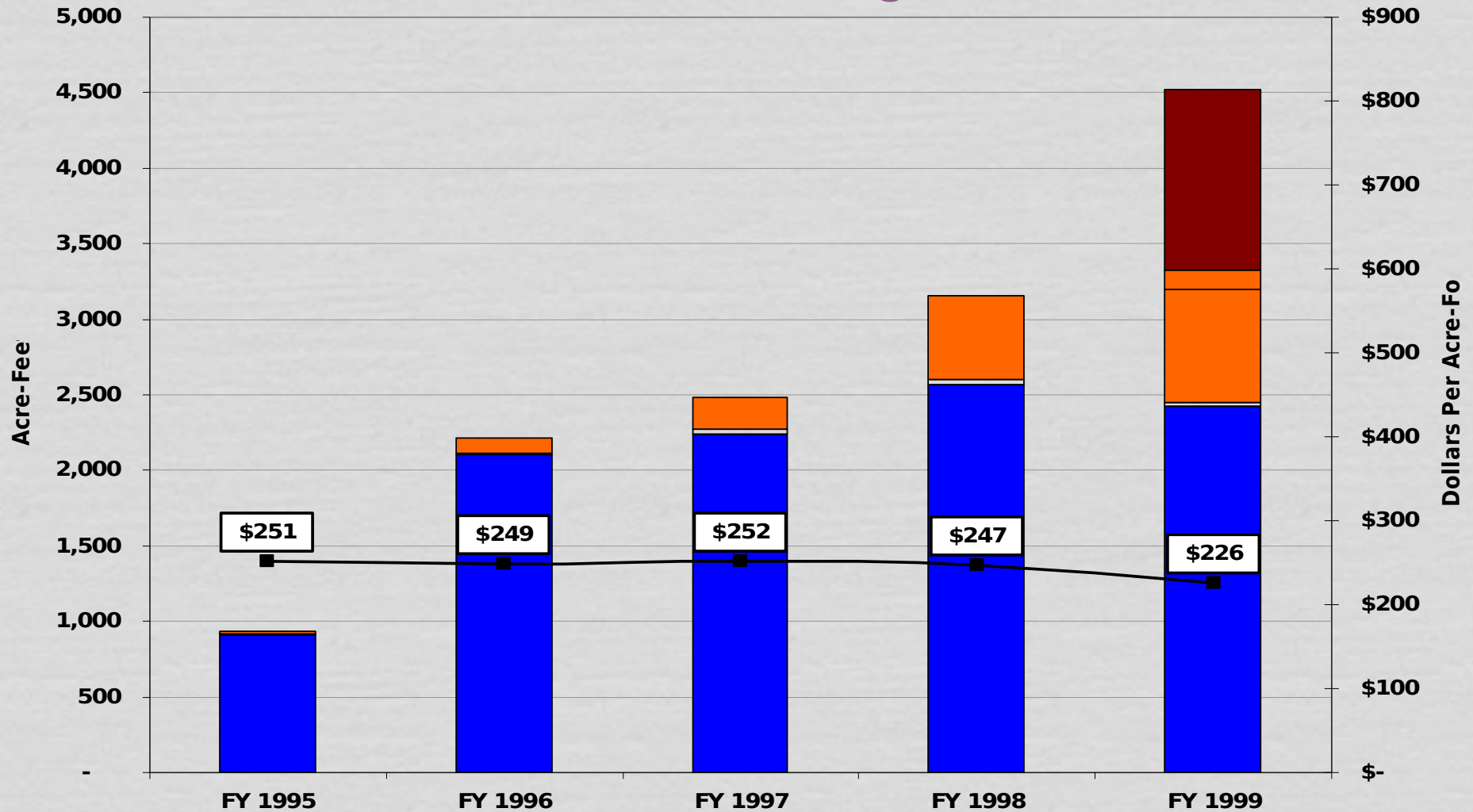
- System Audits, Leak Detection and Repair
 - Public Information
 - School Education
 - Conservation Pricing
 - Metering
 - Water Waste Prohibition
 - Conservation Coordinator
- 

Initiatives with Retail Customers

- Public Education and Information Programs
 - Learning to be Water Wise
 - Project Wet
- Large Landscape Conservation Programs
- Water Survey Program For Residential Customers



Costs Of Water Saved And Acre Feet Saved Conservation Programs



Conclusion

- ✓ Utility & public cooperation essential
- ✓ Understanding demand = success
- ✓ Conservation is a benefit
- ✓ BMPs help with planning and management of programs



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